

TWO NEW AUSTRALIAN FLEAS.

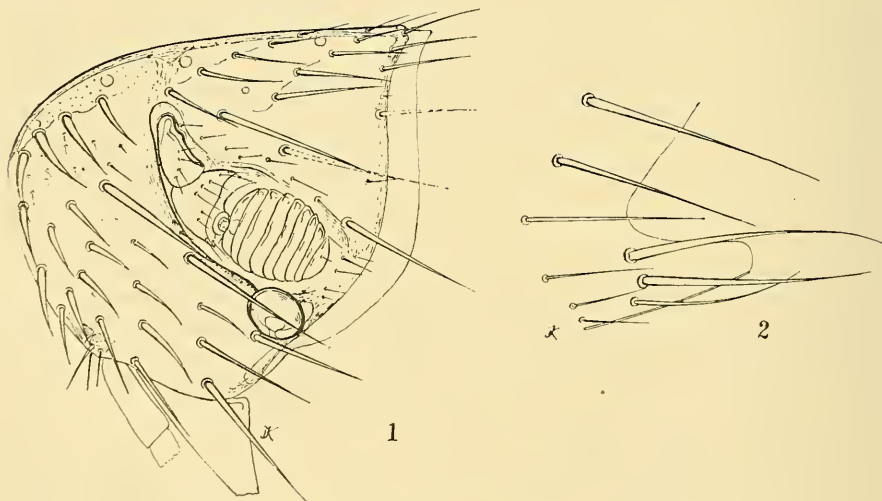
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(With two Text-figures.)

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The fleas here described were submitted to me for study by Mr. Frank H. Taylor, School of Public Health and Tropical Medicine, University of Sydney, to whom I tender my best thanks. The *Xenopsylla* is particularly interesting, as it is a connecting link between the fleas known as *X. hawaiiensis* Jord. 1932 and *X. vexabilis* Jord. 1925. The series of Queensland specimens sent by Mr. F. H. Taylor leaves no doubt in my mind that *hawaiiensis* (Sandwich Is.), *meseris* (Queensland) and *vexabilis* (Franklin Is., South Australia) are subspecies of one species.



Text-figs. 1, 2.—*Stivalius molestus*, n. sp.

XENOPSYLLA VEXABILIS MESERIS, n. subsp.

This Queensland race is characterized as follows: Chaetotaxy as in *X. hawaiiensis*, i.e., bristles more numerous, especially on abdominal sternites, than in *X. v. vexabilis*; the numbers being (on the two sides together):

On sternite:	III.	IV.	V.	VI.	VII.
<i>X. v. meseris</i> ♂	7-9	8-9	8-10	7-10	9-11
<i>X. v. vexabilis</i> ♂	6	6	6	6	6
<i>X. v. meseris</i> ♀	9-10	9-10	10	10	13
<i>X. v. vexabilis</i> ♀	6	7	8	3	8

Bristles on outer surface of sternite VIII of ♂ (on one side) from stigma downwards in *X. v. meseris* 16-21, in *X. v. vexabilis* 13. Bristles on outer surface of tergite VIII of ♀ (on one side), inclusive of marginal ones, in *X. v. meseris* 25-28, in *X. v. vexabilis* 19.

Modified Segments.—♂: as in *X. v. vexabilis*, the membraneous ventral margin of process P of clasper does not extend to middle, whilst in *X. v. hawaiiensis* at least half the ventral margin is membraneous. ♀: spermatheca as in *X. v. vexabilis*, smaller than in *X. v. hawaiiensis*, but its head shaped as in some specimens of that subspecies.

Hab.—Queensland: Ingham, Nov., 1935, on *Rattus culmorum*, collected by Dr. Baldwin; a series of ♂ and several ♀.

STIVALIUS MOLESTUS, n. sp. (Figs. 1 and 2).

Females only. Near *St. rectus* J. & R. 1922 (Queensland) and *St. mordax* J. & R. 1922 (New Guinea), but differs in the head and tail-end. Pale vertical margin of frons (fig. 1) longer than in the two allied species, the head resembling in shape the head of a male rather than of a female; the pale portion of the frontal margin about one-fourth longer than the more strongly chitinized dorsal portion (which ends at the slight dorsal incassation above the antennal groove). Sternite VII (fig. 2) sinuate as in the allied species, but the sinus less deep, the two large subapical bristles below the sinus being placed vertically below the deepest point of the sinus, whereas in both *St. mordax* and *St. rectus* they are placed farther back on the ventral lobe. Tergite VIII apically sinuate as in other species, the lobe above the sinus as in *St. rectus*, but more rounded.

Hab.—Queensland: Ingham, November, 1935, on *Rattus culmorum*. collected by Dr. Baldwin; 7 ♀.